GEOMETRY
ESSENTIAL STANDARDS

Fall Semester

Essential Standard	State Standard
Students identify and apply transformations of figures using rotations, translations, and/or reflections.	22
Students use theorems involving the properties of parallel lines cut by a transversal to… a. construct proofs involving parallel lines. b. Determine measures of missing angles.	7
Students use the properties of complementary, supplementary, vertical, and exterior angles to solve problems.	13
Students use theorems involving the properties of similar triangles to… a. construct proofs involving similar angles b. determine measures of missing angles or sides.	5
Students solve for unknown measures of sides or angles in a right triangle using trigonometric ratios and/or the Pythagorean Theorem.	15,19
Students use properties of special right triangles to determine unknown measures of sides and angles.	20
Spring Semester	
Essential Standard	State Standard
Students use theorems involving the properties of congruent triangles to construct proofs involving congruent triangles and/or their corresponding parts.	5
Students use theorems involving the properties of quadrilaterals to… a. construct proofs involving quadrilaterals. b. Determine measures of missing angles or sides.	7
Students solve problems involving area, perimeter, or circumference of triangles, quadrilaterals, circles, and composite figures.	8
Students compute the volumes and surface areas of prisms, pyramids, cylinders, cones, and spheres.	9
Students use the midpoint, distance, and slope formulas to solve problems involving coordinate geometry.	17
Students solve problems regarding relationships in circles including… a. the lengths of chords, secants, and tangents. b. The arcs and angles.	7,21